lucorum. I am positive that he gave me the name spinolae for it, or I would not have known anything about spinolae.

The writer hopes this article may stimulate some interest among the entomology students at Orono, and send them forth to search for the long lost Lygus lucorum Mey. It is possible that some of the collections made in that locality may even now contain this uniformly green Lygus. However, there is another green species, Lygus pabulinus L., which occurs in that area and may cause confusion in identification, but pabulinus L. is more slender and distinguished by having the carina across base of vertex obsolete on the middle. Lygus lucorum Mey. is about the size and shape of the tarnished plant bug (L. pratensis oblineatus Say), but uniformly green or yellowish green in color. By next summer it will be forty-five years since Dr. Fernald captured the only known specimen of Lygus lucorum Mey, from North America. Who will be the first to rediscover this long neglected species?

## A Fossil Dragon-fly from California (Odonata: Calopterygidae).

By T. D. A. Cockerell, Boulder, Colorado.
(Plate VI.)

It has seemed strange that the State of California, so rich in fossils of many kinds, possessed no deposits of fossil insects, with the exception of certain beetle elytra from the Pleistocene. Recently, however, Dr. Ralph W. Chaney was looking for fossil plants in the Eocene of Northern California, and at Phillips sawmill, five miles southeast of Montgomery Creek, Shasta County, he found the central portion of a dragon-fly wing in soft bluish rock. It occurred with fossil plants indicating a swamp habitat. The specimen, though imperfect, seems unquestionably to belong to the Zygopterous subfamily Polythorinae, at present confined to the Neotropical Region. I am inclined to interpret this as meaning that the Polythorinae originated in the north, not as representing an immigrant from some southern region.

At first, I was disposed to place the insect in the genus *Euthore*, but it combines characters of *Euthore* and *Chalcopteryx*, and considering its antiquity and location, there can be

little doubt that it represents a distinct genus, the distinctness of which would be more evident if we possessed the whole wing.

PROTOTHORE new genus.

Rather small species, the wings conspicuously marked, black and hyaline; (a.) stigma (pterostigma) large but slender, not as deep as the substigmatal cells; (b.) base of stigma with a transverse cell below, composed of upper part of the first two substigmatic cells; (c.) postnodal cells numerous, about 43, of which 20 are before the median black area; the first 20 or more are much higher than long, some twice as high as long; (d.) cells beyond subnodus (23 before median black area) practically as in Euthore, but the cross-veins of cells in light area are not in a straight line with those above (Chalcopteryx character); (c.) subnodus ending some distance (about a cell's width) before origin of nodal sector (R<sub>3</sub> of Tillyard, M<sub>2</sub> of Needham); (f.) eight cells before doubling begins above nodal sector, but second cell with a triangular division above, doubtless a variable character.

Character f. agrees with Euthore, not at all with Chalcopteryx. Character c. agrees with Chalcopteryx. Character e. agrees with Libellago. Character a. is different from Chalcopteryx and Euthore. Character b. is probably not constant; a similar transverse cell may sometimes be seen in Epiophlebia, beyond the region of the stigma.

## Protothore explicata new species.

Wing hyaline in middle, from about two or three cells beyond subnodus for a distance of about 7 mm., the end of the clear area curved apicad; rest of wing, so far as can be seen, black; the black extending as far as the stigma and probably to the apex; shape of wing, so far as can be seen, about as in *Euthore*. Nodus to base of stigma 14.5 mm.; length of stigma about 3 mm.; width (depth) of wing in region of subnodus about 9 mm., in region of stigma apparently 7.2 mm., but there is some disarrangement and overlapping, so the actual depth is doubtless greater.

I am indebted to my colleague Mr. Paul Shope for the photograph of the wing. The specimen belongs to the University of California.